

Translation

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

516, 413  
PCT/EP2003/006320



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Applicant's or agent's file reference 401th/229107	<b>FOR FURTHER ACTION</b> See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)	
International application No. PCT/EP2003/006320	International filing date (day/month/year) 16 June 2003 (16.06.2003)	Priority date (day/month/year) 28 August 2002 (28.08.2002)
International Patent Classification (IPC) or national classification and IPC B23B 31/00		
Applicant HARTMETALL-WERKZEUG FABRIK PAUL HORN GmbH		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet.</p> <p><input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of <u>9</u> sheets.</p>	
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>	

Date of submission of the demand 04 September 2003 (04.09.2003)	Date of completion of this report 03 August 2004 (03.08.2004)
Name and mailing address of the IPEA/EP	Authorized officer
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# INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP2003/006320

## I. Basis of the report

### 1. With regard to the elements of the international application:\*

- ☐ the international application as originally filed
- ☒ the description:  
 pages \_\_\_\_\_ 6-13 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1-5, 5a \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 11 May 2004 (11.05.2004)
- ☒ the claims:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, as amended (together with any statement under Article 19  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_ 1-7 \_\_\_\_\_, filed with the letter of \_\_\_\_\_ 11 May 2004 (11.05.2004)
- ☒ the drawings:  
 pages \_\_\_\_\_ 1/2-2/2 \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_
- ☐ the sequence listing part of the description:  
 pages \_\_\_\_\_, as originally filed  
 pages \_\_\_\_\_, filed with the demand  
 pages \_\_\_\_\_, filed with the letter of \_\_\_\_\_

### 2. With regard to the language, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language \_\_\_\_\_ which is:

- ☐ the language of a translation furnished for the purposes of international search (under Rule 23.1(b)).
- ☐ the language of publication of the international application (under Rule 48.3(b)).
- ☐ the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

### 3. With regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
- ☐ filed together with the international application in computer readable form.
- ☐ furnished subsequently to this Authority in written form.
- ☐ furnished subsequently to this Authority in computer readable form.
- ☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
- ☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

### 4. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, Nos. \_\_\_\_\_
- ☐ the drawings, sheets/fig \_\_\_\_\_

### 5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).\*\*

\* Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rule 70.16 and 70.17).

\*\* Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.

## INTERNATIONAL PRELIMINARY EXAMINATION REPORT

International application No.

PCT/EP 03/06320

## V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

## 1. Statement

Novelty (N)	Claims	1-7	YES
	Claims		NO
Inventive step (IS)	Claims	1-7	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-7	YES
	Claims		NO

## 2. Citations and explanations

Reference is made to the following document:

D1: FR-A-1 497 546 (BALEA GEORGES) 13 October 1967  
(1967-10-13)

D1 is considered to be the prior art closest to the subject matter of claim 1. Said document discloses (the references in parentheses relate to D1):

D1 (fig. 1 to 3) shows a cutting machine tool having a holder (3), the one end of which has a fixing shank (1) and the other end of which has a seat for an interchangeable cutting body (19, 23, 24) having a carrier portion (19) which, in the fixed state, engages at least partly in the seat, and having a machining portion (24), wherein the carrier portion is clampingly fixable in the seat by means of a fixing portion (11) and wherein the seat has a support area, and in addition to the support area has a feed area (3a), and wherein said two areas are movable towards or away from each other for the purpose of fixing or interchanging the cutting body by means of the fixing portion (page 2, second paragraph), wherein the seat is slotted (7, 8) towards the fixing shank to form the support area and the feed area, and wherein a resilient relative movement of the two areas is

facilitated by the respective slot which, on the one side thereof, opens to the outside.

The subject matter of claim 1 therefore differs from the known tool in that the support area has mutually converging support faces which can be brought to bear against correspondingly converging bearing faces on the carrier portion, in that the feed face of the feed area extends perpendicular to the support faces of the support area and thus acts on a further bearing face on the carrier portion, and in that the fixing portion has a fixing sleeve with an internal thread which can be screwed onto an external thread of the holder, into which external thread each of the seat slots opens.

The subject matter of claim 1 is therefore novel (PCT Article 33(2)).

The problem addressed by the present invention can therefore be considered that of achieving high-precision machining. A further aim is to provide a low-cost and reliable holding means for the cutting body, combined with rapid interchangeability.

The solution to this problem as proposed in claim 1 of the present application involves an inventive step (PCT Article 33(3)) for the following reasons:

The combination of features in claim 1 is neither known from nor suggested by the available prior art.

Claims 2 to 7 are dependent on claim 1 and therefore likewise satisfy the PCT novelty and inventive step requirements.